

## **DOES THE IRS PAY ATTENTION TO CASH TAX AVOIDANCE?**

**Abstract:** The extant literature documents an insignificant association between cash tax avoidance and IRS enforcement as proxied by the frequency of the IRS's downloads of annual reports. This result is puzzling given the IRS's interest in curbing tax avoidance and several stakeholders' perception of cash tax avoidance garnering undesirable IRS scrutiny. To shed light on this puzzle, we posit that the IRS focuses its enforcement efforts on only the cash tax-avoiding firms that are likely to yield favorable enforcement outcomes to the IRS such as levied interests and penalties. Consistent with this view, we provide evidence of a significant positive association between cash tax avoidance and the IRS's acquisitions of the 10-Ks hosted on EDGAR when firms are profitable both in the current year and in the past. We further document a more pronounced effect for large firms and firms with foreign operations. In addition, using IRS budgets as an instrument for IRS attention, we find that the firms that are the subject of incremental IRS attention (i.e., consistently profitable and large) have greater future cash tax payments. Overall, our findings support substantial IRS scrutiny of the financial statements of cash tax-avoiding firms when the firms will likely pay back taxes, interest, and penalties to the IRS. Our evidence speaks to the seemingly lax IRS enforcement espoused by the media and civil society organizations and suggests a rather more efficient enforcement process underlies this perceived laxity.

**Keywords:** tax enforcement; IRS attention; cash tax avoidance.

**Data Availability:** Data are available from the sources cited in the text.

# **DOES THE IRS PAY ATTENTION TO CASH TAX AVOIDANCE?**

## **1. INTRODUCTION**

This study examines the circumstances under which firms' cash tax avoidance activities influence the Internal Revenue Service's (IRS) scrutiny of firms' financial statements. Using the IRS' download frequency of annual reports (hereafter, IRS attention) as a proxy for IRS scrutiny, Bozanic et al. (2017) document that the IRS does not heavily scrutinize firms with greater cash tax avoidance. On the one hand, this result is consistent with the Guenther et al. (2017) finding of lower future level and volatility of tax rates for firms with low cash ETRs. That is, on average, the tax positions generating low cash ETRs likely are not subsequently overturned upon IRS audit, suggesting that the IRS should not be concerned about such firms.

On the other hand, the result is puzzling for three main reasons. First, intuitively, the IRS cares significantly about curbing tax avoidance. Second, higher IRS audit probabilities are associated with reduced cash tax avoidance, implying managers' belief that cash tax avoidance will garner IRS scrutiny (Hoopes et al. 2012). Third, several stakeholders perceive lower cash ETRs to be risky in that the associated tax positions will likely be overturned upon IRS audit, resulting in future cash outlays. For example, low cash ETR associates positively with borrowing costs (Hasan, Hoi, Wu, and Zhang 2014) and audit fees (Donohoe and Knechel 2013), suggesting that lenders and auditors perceive low cash ETRs to be risky. Thus, it is puzzling that the IRS does not seem to pay attention to firms with low cash ETRs.

To shed light on this puzzle, we posit that the IRS chooses to scrutinize only cash tax-avoiding firms that will likely be able to pay any resulting fines, penalties, interests, or settlements without suffering undue financial hardship that might result in bankruptcy. Hence, we suggest the IRS focuses on highly profitable and large cash tax-avoiding firms. We also posit that the IRS pays

greater attention when the cash tax-avoiding firms have likely engaged in tax planning strategies that unduly lower U.S. tax revenues. As such, we expect higher IRS attention on cash tax-avoiding firms with foreign operations, who are likely to shift U.S. taxable income to lower foreign tax jurisdictions.

Consistent with Bozanic et al. (2017), we use the number of IRS downloads of U.S. firms' 10-Ks (i.e., IRS attention) as our measure of regulatory scrutiny. Using a sample of firm-years from 2007–2014, we first validate our sample by examining whether the inferences in Bozanic et al. (2017) continue to hold. Consistent with Bozanic et al. (2017), we document an insignificant effect of cash ETR on IRS attention, suggesting the IRS does not pay significant attention to firms engaging in cash tax avoidance. We then investigate whether firms' cash tax avoidance elicits IRS attention when firms are highly profitable. We find a positive association between cash tax avoidance and the frequency of IRS annual reports downloads only for firms with positive pretax income in both years  $t$  and  $t-1$  or in all three years  $t$ ,  $t-1$ , and  $t-2$ . This result is consistent with profitable firms with higher levels of cash tax avoidance receiving greater scrutiny from the IRS due to IRS enforcement activities. The result could suggest that for profitable firms, low cash ETRs correlate with the IRS's private information or beliefs regarding the firms' tax avoidance activities (Bozanic et al. 2017). The results are also consistent with the IRS focusing on the firms that are likely to yield favorable enforcement outcomes.

Next, we explore the idea that the IRS has scarce resources and as such allocates these resources to firms with better enforcement prospects. To this end, we assess whether large cash tax-avoiding firms and those with foreign operations elicit greater IRS attention. We find a greater positive association between cash tax avoidance and IRS attention for large relative to small profitable firms and for profitable firms with foreign pre-tax income relative to profitable firms

without foreign pre-tax income. This result is consistent with the IRS more heavily focusing its enforcement activities on firms which are more likely to yield favorable enforcement outcomes for the IRS. We conduct several robustness tests. First, we document that our results are robust to measuring cash tax avoidance using cash taxes paid divided by total assets rather than by adjusted pre-tax income. The results are also robust to industry adjusting cash ETR. Second, our results are robust to alternative proxies for IRS attention, large firms and to alternative measures of firms' income shifting opportunities.

We next assess whether IRS attention matters more for firms that are greater IRS enforcement targets. To this end, we examine whether firms with greater IRS attention increase their cash tax payments in future periods particularly when they are consistently profitable, large, and multinational. Drawing casual inference with this analysis suffers from the endogenous relationship between IRS attention and cash tax avoidance. We use instrumental variable regressions, with IRS budgets as an instrument, to generate "quasi-experimental variation" in IRS attention (Angrist and Pischke [2008, p. 122]). As it is difficult to envision any individual firms' cash tax avoidance driving IRS budgets, we argue that IRS budgets provide a plausible source of exogenous variation in IRS attention on individual firms. Consistent with Hoopes et al. (2012), we find that IRS attention is positively associated with future cash ETR. Extending this analysis, we find a more positive association between current IRS attention and future cash ETR for consistently profitable firms (in recent two or three years) relative to firms that are not consistently profitable. Focusing on the consistently profitable firms, we further find that current IRS attention more positively relates to future cash ETR for large relative to small firms. We do not find a differential effect based on the extent of foreign operations. These results suggest that in general,

the firms the IRS targets for enforcement (i.e., consistently profitable and large), respond to the associated increased IRS scrutiny by decreasing cash tax avoidance in the future.

We contribute evidence on the relationship between cash tax avoidance and IRS scrutiny, which is informative to several parties. It is informative to the ongoing debate about the rigor of IRS enforcement, especially amidst considerable IRS budget cuts (e.g., Kocieniewski 2010). We provide evidence of the IRS's efficiency by documenting that the IRS selectively scrutinizes the firms that are most likely to yield more favorable enforcement outcomes from the perspective of the IRS, and that these firms subsequently increase their cash tax payments. Our evidence speaks to the seemingly lax IRS enforcement espoused by the media and civil society organizations and suggests a rather more efficient enforcement process underlies this perceived laxity. The evidence is also informative to investors, the board of directors, managers, and researchers about when cash tax avoidance garners IRS scrutiny.

We contribute to the literature examining the costs of tax avoidance (Hanlon and Heitzman 2010). Hoopes et al. (2012) provide evidence of decreased cash tax avoidance for firms with high IRS audit probabilities, suggesting that managers perceive IRS audits to be a cost of cash tax avoidance. Our results contribute to this literature by providing evidence that lower cash effective tax rates result in increased IRS attention when firms are profitable, large, and have foreign operations, which can result in significant costs in the form of interest and penalties. Corroborating the significant costs, we further document increased future cash tax payments for the targeted firms. Our results also extend the Bozanic et al. (2017) finding of no significant association between cash effective tax rates and IRS attention. When we condition this association on firms' profitability, we document the expected significant association. Our results highlight that the IRS only scrutinizes these cash tax-avoiding firms when the firms are profitable both in the present and in

the past. Our results also answer the call to add to the scarce empirical evidence on the association between IRS enforcement and corporate tax avoidance (Cowell 2004; Kopczuk and Slemrod 2006; Hoopes et al. 2012).

We also extend the literature examining the association between regulatory scrutiny and a variety of corporate outcomes (e.g., Mills 1998; Guedhami, and Pittman 2008; El Ghouli, Guedhami, and Pittman 2011; Hanlon, Hoopes, and Shroff 2014; Kubick et al. 2016; and Towner 2017). Mills (1998) find that proposed IRS audit adjustments are increasing in book-tax differences while Guedhami and Pittman (2008) and El Ghouli, Guedhami, and Pittman (2011) provide evidence consistent with IRS monitoring decreasing equity and debt financing costs. Our results contribute to this literature by providing evidence that for firms that will likely pay back taxes, interests, and penalties to the IRS upon audit, lower cash effective tax rates elicit increased IRS scrutiny, which is successful in extracting greater future cash tax payments.

## **2. LITERATURE AND HYPOTHESES**

### ***2.1. The Costs of Cash Tax Avoidance***

The extant literature examines the costs of cash tax avoidance from a variety of perspectives. Some evidence suggests cash tax avoidance is not costly (Guenther et al. 2017; Chen, Schuchard and Stomberg 2018), whereas others find negative implications of cash tax avoidance (Hoopes, Mescall, and Pittman 2012; Donohoe and Knechel 2014; Hasan et al. 2014; Isin 2018; Chen, Schuchard and Stomberg 2018). Guenther et al. (2017) find that cash tax avoidance is associated with greater future cash tax avoidance, lower volatility in future tax payments relative to pretax income, and lower future stock return volatility. One implication of these results is that on average, cash tax avoidance is not risky in that the associated tax positions are not later

overturned resulting in increased future tax payments. Chen, Schuchard and Stomberg (2018) provide evidence that cash taxes do not subsequently decrease after media coverage of corporate taxes. These results suggest that cash tax avoidance should not garner IRS scrutiny.

In contrast, another body of work suggests IRS attention should be increasing in cash tax avoidance. Hoopes, Mescall, and Pittman (2012) find that firms with high IRS audit probabilities engage in less cash tax avoidance. Donohoe and Knechel (2014) proxy for tax aggressiveness that is “likely of interest to tax authorities” using very low cash and current ETRs and posit that the auditor’s risk assessment is increasing in tax aggressiveness. Accordingly, they find a positive association between tax aggressiveness and audit fees. Also, Hasan et al. (2014) and Isin (2018) document that cash tax avoidance is positively associated with abnormal loan interest payments. They interpret the results as lenders perceive that cash tax avoidance induces significant risks and thus lenders penalize firms with greater cash tax avoidance with higher loan costs. Chen, Schuchard, and Stomberg (2018) find that firms with high cash tax avoidance elicit a more negative toned-media coverage. Together, these studies suggest that managers, auditors, lenders, and the media perceive that cash tax avoidance will likely induce IRS scrutiny.

## ***2.2. IRS Enforcement and Cash Tax Avoidance***

An emerging literature examines the relation between IRS enforcement and corporate tax avoidance, although empirical evidence on this issue remains scarce (Cowell 2004; Kopczuk and Slemrod 2006; Hoopes et al. 2012). This literature generally suggests that cash tax avoidance elicits IRS scrutiny. Mills (1998) finds that proposed IRS audit adjustments are increasing in book-tax differences. Hoopes, Mescall, and Pittman (2012) document that the manager's perception of higher IRS enforcement as measured with IRS audit probabilities is associated with lower cash tax avoidance. Finley (2019) develop a measure of managers’ perception of lax IRS monitoring using

unrecognized tax benefit settlements and provide evidence of increased cash tax avoidance for firms perceiving lax IRS monitoring.

Given this wealth of evidence suggesting a positive association between cash tax avoidance and IRS enforcement, it is puzzling that Bonzanic et al. (2017) do not provide evidence consistent with this suggestion. Instead, they find no significant association between cash tax avoidance and IRS attention, although they document a positive association between UTB and IRS attention. The purpose of this study is to examine this puzzle by considering the circumstances under which cash tax avoidance might garner IRS attention. We posit that the IRS focuses its enforcement efforts on only the cash tax-avoiding firms that are likely to yield favorable enforcement outcomes to the IRS such as levied interests and penalties. We identify firm profitability, size, and foreign operations as firm characteristics describing firms with the potential to yield better IRS enforcement outcomes.

### ***2.3. IRS Enforcement, Cash Tax Avoidance, and Firm Profitability (H1)***

Firms that are profitable in the present and past likely can generate funds to pay back taxes owed, interests, and penalties without going bankrupt and should thus generate future taxable income which is beneficial to the IRS. IRS focus on such firms likely yields better enforcement success. Consistent with this intuition, prior research finds a positive association between firm profitability and IRS scrutiny (Bonzanic et al. 2017). Moreover, the likelihood of being audited by the IRS is increasing in firm profitability (Nessa, Schwab, Stomberg 2019).

Given that firms with low cash taxes paid have likely undertaken positions that will be overturned upon IRS audit (e.g., Donohoe and Knechel 2014) and the greater opportunities to generate tax revenues in the present and future from profitable firms, we expect the IRS to increase enforcement efforts on profitable cash tax-avoiding firms. Hence, we hypothesize:



**H1:** Cash tax avoidance is more positively associated with IRS attention when firms are profitable.

#### ***2.4. IRS Enforcement, Cash Tax Avoidance, and Firm Size (H2)***

Resources to pay and the opportunity to collect greater amounts are increasing in firm size. As the Transactional Records Access Clearinghouse (TRAC), a nonpartisan research group affiliated with Syracuse University succinctly stated, the “the larger the business, the larger the dollar amounts of tax underreporting and back taxes on average that they may owe” (Kocieniewski 2010). Although a 2010 TRAC study suggests reduced IRS attention on large firms (Kocieniewski 2010), the extant empirical research suggests IRS scrutiny is increasing in firm size (Bonzanic et al. 2017). Moreover, the likelihood of being audited by the IRS is increasing in firm size (Nessa, Schwab, Stomberg 2019).

Given the anecdotal and empirical evidence that the IRS will collect more in back taxes, interests, and penalties from large firms and the literature noting increased IRS scrutiny of large firms, we predict that the IRS pays more attention to large cash tax-avoiding firms. Accordingly, we hypothesize:

**H2:** Cash tax avoidance is more positively associated with IRS attention when firms are large.

#### ***2.5. IRS Enforcement, Cash Tax Avoidance, and Foreign Operations (H3)***

Foreign operations present opportunities for income shifting and questionable tax practices which while lowering cash taxes, increases the probability of being overturned by the IRS (De Simone, Mills, Stomberg 2018). As such, the IRS recently increased its efforts to improve global tax enforcement as evidenced by the renaming of the Large and Mid-Size Business (LMSB) division as the Large Business and International division (LB&I) in 2010 (IRS 2010). Accordingly,

prior research documents that firms with foreign operations face greater IRS scrutiny (Bonzanic et al. 2017). Also, firms with foreign operations are more likely to be audited by the IRS (Nessa, Schwab, Stomberg 2019). In addition, measuring complexity to include foreign sales, Ayers, Seidman, and Towery (2019) document that complexity is positively associated with the likelihood of being audited by the IRS in the CIC program.

Foreign operations, together with lower cash taxes, suggest firms' use of tax strategies that are likely to be overturned upon IRS audit. Thus, we expect the IRS to increase scrutiny on cash tax-avoiding firms with foreign operations. Therefore, we hypothesize:

**H3:** Cash tax avoidance is more positively associated with IRS attention when firms have foreign operations.

### 3. METHODOLOGY

#### 3.1. *Sample*

Table 1 illustrates our sample selection procedure. Our primary sample consists of all firms from the Compustat database. The sample period is from 2004 to 2014.<sup>1</sup> We exclude foreign firms, firms in the financial sector (SIC codes 6000 – 6999) and the utility sector (SIC codes 4900 – 4949), and firms with \$0 or less in book assets. We also require observations with the necessary data to compute the variables in our model. We merge this data from Compustat with the IRS attention data from Bozanic et al. (2017).<sup>2</sup> We restrict the sample from 2007 to 2014 to control for UTB. Our final sample used in the multivariate regression analyses consists of 12,446 firm-year observations for the 2007 - 2014 period.<sup>3</sup>

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<sup>1</sup>We run regressions from 2007 to 2014 because UTB is only available from 2007. We started from 2004 because we need the prior three years to calculate pretax income in year t-1 and year t-2.

<sup>2</sup> Accessed at <http://jeffreyhoopes.com/data/irsattentiondata.html>.

<sup>3</sup>The sample size is very close to the sample size in Bozanic et al. (2017), which is 12,191.

<< Insert Table 1 here >>

### 3.2. Empirical Design

We first validate our sample by replicating the Table 2 results in Bozanic et al. (2017). Following Bozanic et al. (2017), we estimate the following OLS specification (firm and year subscripts are omitted for brevity):

$$IRSATTENTION = \beta_0 + \beta_1 CASHETR + \beta_n CONTROLS + FIXEDEFFECTS + \varepsilon \quad (1)$$

Following Bozanic et al. (2017), we measure *IRSATTENTION* using the number of times during a year that an individual with an IRS IP address downloaded a firm's 10-K from EDGAR. Thus, *IRSATTENTION* captures the frequency that the IRS uses a firm's financial information. A larger value of *IRSATTENTION* suggests the IRS pays more attention to the firm. Bozanic et al. (2017) verify this measure in several ways. They find that the relative frequency of IRS downloads of firms by asset size is similar to IRS audits disclosed by the IRS. Also, both within-day and within-week download patterns, suggested by this measure, are consistent with the government employees' work schedule. For example, the number of downloads decreased dramatically during the federal government shutdown between October 1 and 16 in 2013. This measure has been used frequently in recent studies (e.g., Fox and Wilson 2019; Finley and Stekelberg 2019). To address the skewness in the measure, we use the natural logarithm of the number of downloads.

Consistent with Bozanic et al. (2017), we measure *CASHETR* by dividing taxes paid (TXPD) by pretax book income net of special items (PI-SPI)<sup>4</sup>. We focus on *CASHETR* because the IRS's primary responsibility is collecting cash taxes. To test our first hypothesis that cash tax

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<sup>4</sup> Following Bozanic et al. (2017), *CASHETR* is the within-sample quintile rank of *CASHETR*.

avoidance is more positively associated with IRS attention when firms are profitable, we estimate model (1) in two subsamples: one with firms that are profitable in the current year and the previous year ( $PROFIT1=1$ ; i.e., both  $PI_t$  and  $PI_{t-1}$  are greater than zero) and the other remaining firms ( $PROFIT1=0$ ). We compare the difference in  $\beta_I$  between these two subsamples to test H1. We also compare the difference in  $\beta_I$  between  $PROFIT2=1$  (i.e.,  $PI_t$ ,  $PI_{t-1}$ , and  $PI_{t-2}$  are greater than zero) and the other remaining firms ( $PROFIT2=0$ ). A larger  $\beta_I$  when  $PROFIT1$  ( $PROFIT2$ ) =1 relative to when  $PROFIT1$  ( $PROFIT2$ ) =0 suggests the IRS pays more attention to cash tax avoiding firms when the firms are profitable compared to when the firms are not profitable.

To test hypothesis 2, we run regressions on samples split by firm size and compare  $\beta_I$  between the subsamples. Specifically, we estimate model (1) in two subsamples: one with larger firms ( $BIGFIRM=1$ ; i.e.,  $SIZE$  greater than the median in the sample) and the other with smaller firms ( $BIGFIRM=0$ ). We compare the difference in  $\beta_I$  between these two subsamples to test H2. A larger  $\beta_I$  when  $BIGFIRM=1$  relative to when  $BIGFIRM=0$  suggests the IRS pays more attention to cash tax avoiding firms when the firms are larger compared to when the firms are smaller.

Similarly, to test hypothesis 3, we run regressions on samples split by the level of foreign operations and compare  $\beta_I$  between the subsamples. We estimate model (1) in two subsamples: one for firms with more foreign operations ( $MNE=1$ ; i.e., firms with overseas operations) and the other remaining firms ( $MNE=0$ ). We compare the difference in  $\beta_I$  between these two subsamples to test H3. A larger  $\beta_I$  when  $MNE=1$  relative to when  $MNE=0$  suggests the IRS pays more attention to cash tax avoiding firms when the firms have more foreign operations compared to when the firms have less foreign.

All regression models include industry (two-digit SIC), firm, and fiscal year fixed effects to control for unobserved differences within the industry, firm, and year. We cluster standard errors

by firm (Cameron and Miller 2015; Gow et al. 2011) and to control for outliers, we winsorize all continuous variables at the 1<sup>st</sup> and 99<sup>th</sup> percentiles.

Following Bozanic et al. (2017), we use *GAAPETR*, *BTD*, *UTB*, *DTA*, and *DTL* to control for the level of tax avoidance. We control for numerous firm and reporting characteristics that could affect IRS attention. We control for *SIZE*, defined as the natural logarithm of the market value of equity, and expect that larger firms have more tax planning opportunities (Siegfried 1974) and IRS would pay more attention to them (Hoopes et al. 2012; Ayers et al. 2019). Lagged market-to-book ratio (*MTB*) represents growing firms' preference for tax-favored investments, which could potentially attract IRS' attention. We include complexity (*MNE*), which equals one if firms have any pretax income from foreign operations, and zero otherwise. Firms with operations in multiple jurisdictions could have more tax planning opportunities and tax compliance requirements (Rego 2003), and the IRS could pay more attention to them. We include leverage (*LEV*), measured by long-term debt divided by lagged total assets, because Stickney and McGee (1982) suggest that highly leveraged firms tend to avoid more tax, potentially affecting the IRS' attention. Following Bozanic et al. (2017), we also include R&D expenses (*R&D*), inventory intensity (*INVT*), capital intensity (*CAPITAL*), sales growth (*%AREV*), and intangible assets (*INTAN*). We also include return on assets (*ROA*) because Gupta and Newberry (1997) suggest that profitability affects tax outcomes. We control for the effect of tax loss attributes on IRS attention by including the change in net operating losses (*ANOL*). The prior literature finds an association between tax outcomes and cash holdings (Dhaliwal, Huang, Moser, and Pereira 2011). Therefore, we include free cash flow (*CASH*) to control for its potential effect on IRS attention. We provide detailed definitions of all variables in Appendix A.

## 4. RESULTS

### *4.1. Descriptive Statistics*

Table 2 provides descriptive statistics for each variable used in the empirical analyses. Consistent with Bozanic et al. (2017), on average, the number of times the IRS downloaded a firm's 10-K during a given year is about 9, and the median is 3. All other variables' distributions are also very close to the distribution in Bozanic et al. (2017).

<< Insert Table 2 here >>

We draw a figure to obtain a pictorial view of how firms' cash effective tax rates change after increases in IRS attention. We define high (low) IRS attention firms as those with above (below) median of the number of 10-K downloads by the IRS in fiscal year 2010 which we consider the treatment year. We ensure that high IRS attention firms are low IRS attention firms in periods 2007, 2008, and 2009 and the low IRS attention firms are classified as such throughout periods 2007 to 2013. We then plot *CETRs* for the high and low IRS attention firms over years 2007 to 2013. We expect that before firms become high IRS attention firms, their *CETRs* are lower than those of low IRS attention firms, but the *CETRs* should increase after the IRS increases its attention on their annual reports.

Results in Figure 1 suggest that, before firms become high IRS attention firms, their *CETRs* are lower than those of low IRS attention firms. However, when IRS attention increases for these firms, they bear a cost in terms of increased cash tax payments relative to firms with low IRS attention. Subsequently, these firms' cash tax payment pattern merges with that of the low IRS attention firms.

#### ***4.2. Replicating the Results in Bozanic et al. (2017)***

We start by replicating the results in Table 2 of Bozanic et al. (2017). Following Bozanic et al. (2017), we use four different models to examine the effects of different tax avoidance measures on IRS attention. Beyond that, we add one more regression which controls for all industry, firm, and year fixed effects.

Table 3 presents the results. With only firm and year fixed effects, the  $R^2$  of the regression in column 1 is 0.650. This suggests that about 65% of the variation in IRS attention is caused by fixed effects, which is close to the 0.64 in Bozanic et al. (2017). In the regressions in columns 2 and 3, we observe significant coefficients on *GAAPETR*, *UTB*, and *DTA* (significant in column 3), which is similar to the results in Bozanic et al. (2017). After adding firm fixed effects in column 4, the coefficient on *GAAPETR* becomes insignificant. More importantly, the coefficients on *CASHETR* are not significant in all the models. We also add one more regression after controlling for industry, firm, and year fixed effects; results are consistent with the results in column 4. While we observe a difference in the significance of some coefficients (e.g., *DTL* and *CAPITAL*), over all, we can replicate the Table 2 results in Bozanic et al. (2017), which documents that the effect of *CASHETR* on *IRSATTENTION* is not significant after controlling for firm fixed effects.

<< Insert Table 3 here >>

#### ***4.3. Descriptive Statistics and Univariate Results***

Table 4 panel A provides descriptive statistics for firms with positive pretax income in both the current and previous year (*PROFIT1*=1). The sample size reduces from 12,446 to 9,297. On average, the number of times the IRS downloaded a firm's 10-K during a given year increases

from 9 in the full sample to 10 and the median is still 3. Overall, the distribution of variables in this sample is similar to the larger sample of 12,446 observations.

We also provide descriptive statistics for the remaining firms in panel B (*PROFIT1*=0). The sample size is 3,149 (12,446 minus 9,297). On average, the number of times the IRS downloaded a firm's 10-K during a given year reduces from 9 in the *PROFIT1*=1 sample to 6, with a median of 2. Notably, the mean value of *IRSATTENTION* when *PROFIT1*=1 drops from 10 to 6 when *PROFIT1*=0, indicating that the IRS pays more attention to profitable firms. Also, both *GAAPETR* and *CASHETR* are lower when *PROFIT1*=0. Finally, we observe that firms are smaller and having more growth opportunities when *PROFIT1*=0. Overall, the distribution of variables in the sample with positive pretax income in both the current and previous year is similar to the larger sample of 12,446 observations, which is similar to the distribution in the Bozanic et al. (2017).

<< Insert Table 4 here >>

We provide Pearson and Spearman correlations among variables in the subsample with *PROFIT1*=1 in table 5. We observe that, among the tax avoidance measures, *GAAPETR*, *BTD*, *UTB*, *DTA*, and *DTL* are significantly correlated with *IRSATTENTION*. Consistent with Bozanic et al. (2017), *CASHETR* is not significantly associated with *IRSATTENTION*.

<< Insert Table 5 here >>

#### **4.4. Multivariate Results**

##### **4.4.1. IRS Attention, Cash Tax Avoidance, and Firm Profitability (H1)**

To test the first hypothesis, we estimate model (1) in subsamples with *PROFIT1*=1, *PROFIT1*=0, *PROFIT2*=1, and *PROFIT2*=0. We present the results of this test in Table 6, columns



1 through 4 respectively. When  $PROFIT1=1$ , the coefficient on  $CASHETR$  is significantly negative (Estimate =  $-0.010$ , t stat. =  $-1.7$ ) but the coefficient is insignificant when  $PROFIT1=0$  (Estimate =  $-0.002$ , t stat. =  $-0.1$ ). Similarly, when  $PROFIT2=1$ , the coefficient on  $CASHETR$  is significantly negative (Estimate =  $-0.014$ , t stat. =  $-2.1$ ) but the coefficient is insignificant when  $PROFIT2=0$  (Estimate =  $0.001$ , t stat. =  $0.1$ ). While there is no significant association between  $CASHETR$  and  $IRSATTENTION$  on average (per the results in Table 3 and consistent with Bonzanic et al. 2017) suggesting cash tax avoidance does not elicit IRS attention, these Table 6 results paint a different picture. When firms have been profitable in recent years, the firms' cash tax avoidance garners significant IRS attention. Consistent with H1, the coefficient on  $CASHETR$  is significantly more negative when  $PROFIT1$  ( $PROFIT2$ ) = 1 relative to when  $PROFIT1$  ( $PROFIT2$ ) = 0 (t stat. = 2.4 and 5.1).

When we use greater than zero pretax income in year  $t$  to define profitability, only 351 observations are not profitable compared to the 12,095 profitable firm-year observations. Thus, almost all firm-year observations in our sample are profitable in the current period. Moreover, we do not find similar evidence as the results presented in Table 6 suggesting that the current year's profitability does not matter for IRS attention by itself. Rather, it is *both* the current *and* previous years' profitability of cash tax avoiding firms that draws IRS scrutiny. Overall, these results together suggest that, for consistently profitable firms, the IRS increases enforcement efforts on the firms exhibiting higher levels of cash tax avoidance. In contrast, IRS enforcement is not responsive to cash tax avoidance when firms are not consistently profitable. Moreover, the results imply that to collect more tax revenues effectively, the IRS targets those firms with a greater ability to pay.

<< Insert Table 6 here >>

#### **4.4.2. IRS Attention, Cash Tax Avoidance, and Firm Size (H2)**

Since we observe the coefficient on *CASHETR* is only significant within the consistently profitable firms, we present our hypotheses 2 and 3 results within this sample only, although our untabulated tests within the full sample corroborate these results. To test our second hypothesis, we estimate model (1) in subsamples with *BIGFIRM* =1 and *BIGFIRM* =0, where *BIGFIRM* =1 if a firm's market value of equity is above the sample median. We present the results of this test in Table 7, with the *PROFIT1* =1 (*PROFIT2* =1) results in columns 1 and 2 (columns 3 and 4). Consistent with H2, the coefficient on *CASHETR* is significantly more negative when *BIGFIRM* =1 relative to when *BIGFIRM* =0 (t stat. = 5.0 and 3.7).

Thus, the results suggest that compared to small cash tax avoiding firms, large cash tax avoiding firms are more likely to attract IRS attention. The results are consistent with the IRS focusing its enforcement efforts on the firms that both have a higher probability of owing and the resources to pay back taxes, interests, and penalties.

<< Insert Table 7 here >>

#### **4.4.3. IRS Attention, Cash Tax Avoidance, and Foreign Operations (H3)**

To test hypothesis 3, we estimate model (1) in subsamples with *MNE* =1 and *MNE* =0, where *MNE* =1 if a firm's foreign income (PIFO) is greater than zero. We present the results of this test in Table 8, with the *PROFIT1* =1 (*PROFIT2* =1) results in columns 1 and 2 (columns 3 and 4). When *PROFIT1*=1, the coefficient on *CASHETR* is significantly negative (Estimate = – 0.016, t stat. = –2.0) when *MNE* =1 but the coefficient is insignificant when *MNE* =0 (Estimate = –0.006, t stat. = –0.7). Similarly, when *PROFIT2*=1, the coefficient on *CASHETR* is significantly negative (Estimate = –0.014, t stat. = –2.1) when *MNE* =1 but the coefficient is insignificant when

$MNE = 0$  (Estimate = 0.001,  $t$  stat. = 0.1). Hence, even within the consistently profitable firms, cash tax avoiding firms elicit IRS attention only when they have foreign operations. Consistent with H3, the coefficient on *CASHETR* is significantly more negative when  $MNE = 1$  relative to when  $MNE = 0$  ( $t$  stat. = 3.1 and 4.3).

Overall, the results suggest the IRS is more likely to pay attention to firms with overseas operations that pay lower taxes. The results are consistent with the IRS increasing scrutiny of firms that have greater opportunities to avoid taxes, especially when the firms exhibit low cash effective tax rates.

<< Insert Table 8 here >>

## 5. ROBUSTNESS TESTS

### 5.1. *Firms with Frequent IRS Audits*

The IRS has a program called Coordinated Industry Case (CIC) program, which requires many of the largest corporate taxpayers in the United States to be under certain audit from the IRS (Ayers et al. 2018; Hanlon et al. 2007). This fact could raise the concern that our results are driven by the CIC program firms. To address this concern, we re-estimate model (1) in a sample that excludes larger firms. Since firms in the CIC program is not publicly known (Hoopes et al. 2012), we exclude firms in the top quintile of market value from our sample. From the untabulated results, we observe an insignificant difference between the coefficient on *CASHETR* when  $PROFIT1 = 1$  and when  $PROFIT1 = 0$  ( $t$  stat. = 0.3). However, we observe a more negative coefficient on *CASHETR* when  $PROFIT2 = 1$  relative to when  $PROFIT2 = 0$  ( $t$  stat. = -3.2). Similarly, we find consistent evidence as those presented in our tests of H2 (Table 7) and H3 (Table 8). Thus, over all, our H1, H2, and H3 results are not driven by those firms in the CIC program.

### ***5.2. Alternative Measures of Cash Tax Avoidance***

We assess whether our main results in the previous sections are sensitive to our measure of cash tax avoidance. We re-estimate model (1) using two alternative cash ETR measures. First, we replace the denominator with total assets (instead of pretax income minus special items in our main test). Also, following Balakrishnan et al. (2019), we use industry-year adjusted cash ETR as the cash ETR measure. Untabulated results suggest that our main results hold when we use these alternative measures. Specifically, when we use cash ETR scaled by total assets, the coefficient on *CASHETR* is marginally more negative when *PROFIT1* =1 relative to when *PROFIT1* =0 (t stat. = -1.6). Similarly, the coefficient on *CASHETR* is more negative when *PROFIT2*=1 relative to when *PROFIT2* =0 (t stat. = -1.9). We also find results consistent with our main results supporting H2 and H3 when we use cash ETR scaled by total assets to proxy for cash tax avoidance.

We find similar results when we use industry-year adjusted cash ETR as the alternative measure of cash ETR. We observe the coefficient on the adjusted cash ETR is more negative: when *PROFIT1* =1 relative to when *PROFIT1* =0 (t stat. = -1.8) and when *PROFIT2* =1 relative to when *PROFIT2* = 0 (t stat. = -6.0). The coefficient on the adjusted cash ETR is also more negative: when *BIGFIRM (MNE)* =1 relative to when *BIGFIRM (MNE)* =0, consistent with H2 (H3). Thus, our result that the IRS increases enforcement efforts on the firms exhibiting higher levels of cash tax avoidance for consistently profitable firms, large firms, and firms with foreign operations are robust to different measures of cash tax avoidance.

### ***5.3. Alternative Measures of IRS Attention***

Our main tests measure IRS attention using the natural logarithm of the number of times during a year that an individual with an IRS IP address downloaded a firm's 10-K from EDGAR. In sensitivity analyses, we use the raw count of the number of IRS downloads per year and OLS regressions. Our main results hold when we use this alternative measurement. Specifically, for H1, the coefficient on

*CASHETR* is more negative when *PROFIT1* =1 relative to when *PROFIT1* =0 (t stat. = −416.3). Similarly, the coefficient on *CASHETR* is more negative when *PROFIT2*=1 relative to when *PROFIT2* =0 (t stat. = −1072.1). For H2, we observe, when *PROFIT1* =1, the coefficient on *CASHETR* is more negative when *BIGFIRM* =1 relative to when *BIGFIRM* =0 (t stat. = −102.1). Similarly, when *PROFIT2* =1 the coefficient on *CASHETR* is more negative when *BIGFIRM* =1 relative to when *BIGFIRM* =0 (t stat. = −93.0). For H3, we find, when *PROFIT1* =1, the coefficient on *CASHETR* is more negative when *MNE*=1 relative to when *MNE* =0 (t stat. = −2.3). Finally, when *PROFIT2* =1, the coefficient on *CASHETR* is not significantly different when *MNE*=1 from when *MNE*=0 (t stat. = −1.1). Thus, overall, our results are consistent with our main results when we use this alternative measure to proxy for IRS attention.

#### **5.4. Alternative Measures of Firm Size**

While our main proxy for firm size is based on the market value of equity, we use sales and total assets as different measures of firm size to assess the robustness of our H2 results. Untabulated results suggest that, in both the *PROFIT1* =1 and *PROFIT2* =1 sample, with size based on total assets, the coefficient on *CASHETR* is significantly more negative when *BIGFIRM* =1 relative to when *BIGFIRM* =0 (t stat. = −3.9 and −7.5, respectively). When we use sales as the proxy for size, we observe similar results. The coefficient on *CASHETR* is significantly more negative when *BIGFIRM* =1 relative to when *BIGFIRM* =0 in both the *PROFIT1* =1 and *PROFIT2* =1 samples (t stat. = −2.3 and −5.9, respectively). Thus, our results are not sensitive to alternative size measures.

### ***5.5. Alternative Measures of Foreign Operations***

To examine whether our results for H3 is sensitive to the foreign operations measure we use, we examine an alternative proxy for foreign operations. Specifically, we define *MNEI* equals one, if foreign pre-tax income is greater than the median of foreign pre-tax income in the sample, zero otherwise. We use this measure to reexamine H3. Untabulated results suggest that, within both the *PROFIT1* =1 and *PROFIT2* =1 samples, the coefficient on *CASHETR* is significantly more negative when *MNEI* =1 relative to when *MNEI* =0 (t stat. = -2.6 and -3.1, respectively). In other words, our H3 result is robust to this alternative measure of foreign operations.

## **6. CONSEQUENCES OF IRS ATTENTION**

In the previous sections, we document that the IRS pays more attention to firms with lower cash ETR when the firms are consistently profitable, large, and have foreign operations. A natural question is whether as a consequence to the greater IRS scrutiny, the firms increase their cash tax payments in future periods due to decreased cash tax avoidance. Also, whether the IRS is successful in recovering back taxes, interest, and penalties from these selectively targeted firms. We evaluate these questions by examining whether firms with greater IRS attention increase their cash tax payments in future periods particularly when they are consistently profitable, large, and multinational. Drawing casual inference with this analysis suffers from the endogenous relationship between IRS attention and cash tax avoidance. We use instrumental variable regressions, with IRS budgets as an instrument for IRS attention. We argue that IRS budgets provide a plausible source of exogenous variation in IRS attention on individual firms because it is difficult to envision any individual firms' cash tax avoidance being an impetus for IRS budgets.

Following Nessa et al. (2019), we measure IRS budget and consequently its resources using (1) IRS expenditures scaled by the number of tax returns per year and (2) the number of tax agents scaled by the number of tax returns in that year. We define a year to be budget constrained if either of the IRS resources measure is below the median for years 2002 to 2016. In the first stage, we use the IRS budget constraint measure and all other control variables in the model (1) to predict IRS attention. In the second stage, we regress firms' future cash ETR ( $CETR_{t+1}$ ) on the predicted value of IRS attention ( $IRSATTENTIONHAT$ ) from the first stage model. Table 9 and 10 report results.

The first column in Table 9 presents the results on the full sample of companies. The significant and positive coefficient on  $IRSATTENTIONHAT$  suggests that firms increase their  $CETRs$  in the next year after they experience greater IRS attention. This result is consistent with Hoopes et al. 2012. To test whether the effect is stronger for consistently profitable firms, we compare the coefficients on  $IRSATTENTIONHAT$  between  $PROFIT1=1$  and  $PROFIT1=0$  ( $PROFIT2=1$  and  $PROFIT2=0$ ), with the results presented in columns 2 and 3 (4 and 5) of Table 9, respectively. The significant t-stats. presented at the bottom of these columns ( $t=15.4$  and  $t=20.7$ ) suggest that, compared to firms that are not consistently profitable, greater IRS attention in the current year increases the proceeding year's cash ETR to a greater extent for firms that are consistently profitable. Focusing on the consistently profitable firms ( $PROFIT2=1$ ), results presented in columns 1 and 2 of Table 10, the coefficient of  $IRSATTENTIONHAT$  is significantly greater for the large firms ( $BIGFIRM =1$ ) than for the small firms ( $BIGFIRM =0$ ). The difference in this coefficient is not statistically significant for firms with overseas operations ( $MNE =1$ ) relative to those without foreign operations ( $MNE =0$ ). Untabulated results for  $PROFIT1=1$  are consistent with these results. Overall, these results suggest that in general, the firms the IRS targets

for enforcement (i.e., consistently profitable and large), respond to the associated increased IRS scrutiny by decreasing cash tax avoidance in the future.

## **7. CONCLUSION**

One recent study raises a puzzle that the IRS is not interested in firms' cash effective tax rate, despite the IRS's interest in curbing tax avoidance and several stakeholders' perception of cash tax avoidance garnering undesirable IRS scrutiny. To shed light on this puzzle, we posit that the IRS focuses its enforcement efforts on only the cash tax-avoiding firms that are likely to yield favorable enforcement outcomes to the IRS such as levied interests and penalties. Consistent with this view, we provide evidence of a significant positive association between cash tax avoidance and the IRS's acquisition of the 10-Ks hosted on EDGAR when firms are profitable both in the current year and in the past. We further document a more pronounced effect for large firms and firms with foreign operations. Overall, our findings support substantial IRS scrutiny of the financial statements of cash tax-avoiding firms when the firms will likely pay interest and penalties to the IRS. In addition, using IRS budgets as an instrument generating plausibly exogenous variation in IRS attention, we find that the firms that are the subject of incremental IRS attention (i.e., consistently profitable and large) have greater future cash tax payments.

This study is important to different stakeholders. It is informative to the ongoing debate about the rigor of IRS enforcement, especially amidst considerable IRS budget cuts (e.g., Kocieniewski 2010). We provide evidence of the IRS's efficiency by documenting that the IRS selectively scrutinizes the firms that are most likely to yield more favorable enforcement outcomes from the perspective of the IRS. The evidence is also informative to investors, the board of directors, managers, and researchers about when cash tax avoidance garners IRS scrutiny. Our



evidence speaks to the seemingly lax IRS enforcement espoused by the media and civil society organizations and suggests a rather more efficient enforcement process underlies this laxity.

We contribute to the literature examining the costs of tax avoidance (Hanlon and Heitzman 2010). Our results contribute to this literature by providing evidence that lower cash effective tax rates result in increased IRS attention when firms are profitable, large, and have foreign operations, which can result in significant costs in the form of interest and penalties. The result also extends the Bozanic et al. (2017) finding of no significant association between cash effective tax rates and IRS attention. When we condition this association on firms' profitability, we document the expected significant association. Our results highlight that the IRS only scrutinizes these cash tax-avoiding firms when the firms are profitable both in the present and in the past. Our results also answer the call to add to the scarce empirical evidence on the association between IRS enforcement and corporate tax avoidance (Cowell 2004; Kopczuk and Slemrod 2006; Hoopes et al. 2012).

We also extend the literature examining the association between regulatory scrutiny and a variety of corporate outcomes. Previous literature provides evidence consistent with IRS monitoring, decreasing equity and debt financing costs. Our results contribute to this literature by providing evidence that for firms that will likely pay back taxes, interests, and penalties to the IRS upon audit, lower cash effective tax rates elicit increased IRS scrutiny.

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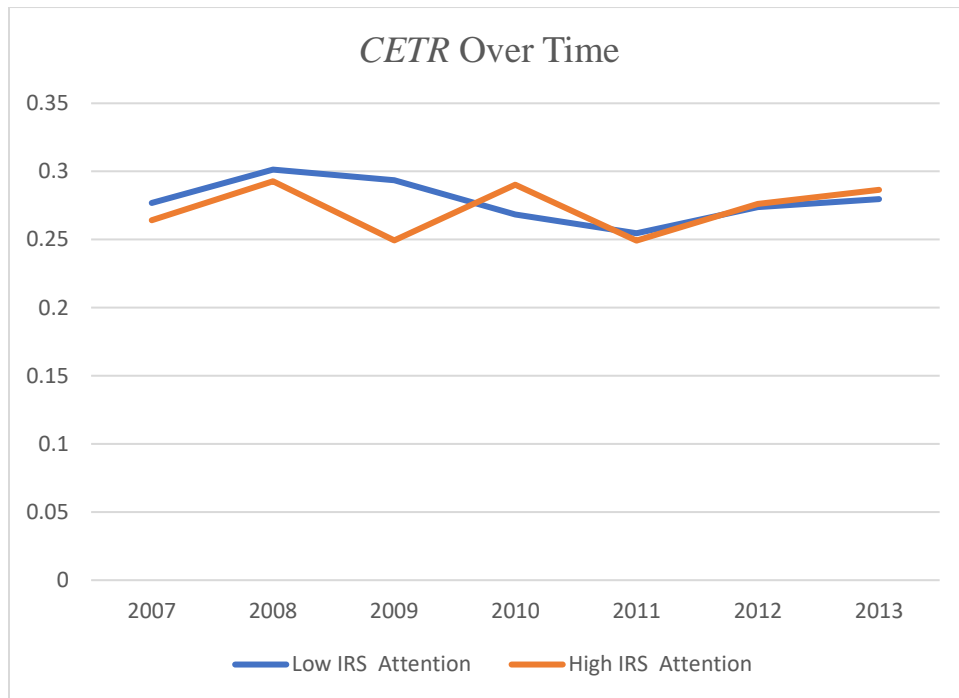
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## APPENDIX A

### Variable Definitions

Main Variables	Definition
<i>IRSATTENTION</i>	Following Bozanic et al. (2017), the natural logarithm of the number of times during a year that an individual with an IRS IP address downloaded a firm's 10-K from EDGAR.
<i>GASHESTR</i>	Taxes paid (TXPD) divided by pretax book income net of special items (PI-SPI).
<i>GAAPETR</i>	Income taxes divided by pretax book income (TXT/(PI-SPT)).
<i>BTD</i>	Pretax income (PI) minus current domestic and foreign tax expense (TXFED + TXFO) grossed up by 35% and adjusted for the change in NOLs (TLCF), scaled by assets (AT).
<i>UTB</i>	Year-end unrecognized tax benefits (UTBs) (TXTUBEND) divided by total assets (AT).
<i>DTA</i>	Net deferred tax assets (TXNDBA) scaled by total assets (AT).
<i>DTL</i>	Net deferred tax liabilities (TXNDBL) scaled by total assets (AT).
Control Variables	
<i>ROA</i>	Return on assets, computed as pretax book income (Compustat PI) divided by lagged total assets (Compustat AT).
<i>ACC</i>	Performance-matched pre-tax discretionary accruals following Frank et al. (2009).
<i>SIZE</i>	The natural logarithm of the market value of equity (Compustat PRCC_F*CSHO).
<i>MNE</i>	Equals one, if firms with any foreign income (i.e., PIFO not missing), computed as pretax foreign income (Compustat PIFO) divided by lagged total assets (Compustat AT), zero otherwise.
<i>INTAN</i>	Reported intangibles (Compustat INTAN) divided by lagged total assets (Compustat AT).
<i>CAPITAL</i>	Net property, plant, and equipment (Compustat PPENT) divided by lagged total assets (Compustat AT).
<i>INVT</i>	Inventory (INVT) divided by lagged total assets.
<i>CHANGEINNOL</i>	Change in net operating loss carryforward (Compustat TLCF) divided by lagged assets (Compustat AT).
<i>MTB</i>	Lagged market-to-book ratio (Compustat PRCC_F * CSHO)/CEQ).
<i>CASH</i>	Cash holdings (CH) scaled by lagged total assets (AT).
<i>LEV</i>	Leverage, computed as total long-term debt (Compustat DLTT) divided by lagged total assets (Compustat AT).
<i>%ΔREV</i>	The difference between current-year sales (SALE) and prior-year sales, divided by prior-year sales.
<i>R&amp;D</i>	Research and development activity, computed by scaling R&D expense (Compustat XRD) by lagged total assets (Compustat AT).

**FIGURE 1**



The figure illustrates how firms' future cash effective tax rates change after the IRS increases their download of the firms' 10-Ks. High (low) IRS attention firms are those with above (below) median of the number of 10-K downloads by the IRS in fiscal year 2010 which we consider the treatment year. We ensure that high IRS attention firms are low IRS attention firms in periods 2007, 2008, and 2009 and the low IRS attention firms are classified as such throughout periods 2007 to 2013. We then plot *CETR*s for the high and low IRS attention firms over years 2007 to 2013.

**TABLE 1**  
**Sample Selection**

<b>Sample Selection Process</b>	
All firm-year observations from Compustat	123,301
Less:	
Foreign firms	(32,761)
Financials and utilities	(18,468)
Less than or equal to \$0 in total assets	(19,086)
Missing variables	(34,016)
Merge with IRS attention data from Bonzanic et al. 2017	(62)
Restrict sample period from 2007 to 2014	(6462)
Final sample	12,446

This table reports the sample selection process for the full sample.

**TABLE 2**  
**Descriptive Statistics**

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>St. Dev</b>	<b>P25</b>	<b>Median</b>	<b>P75</b>
<i>GAAPETR</i>	12,446	0.288	0.128	0.216	0.312	0.368
<i>CASHETR</i>	12,446	0.235	0.159	0.109	0.233	0.333
<i>IRSATTENTION</i>	12,446	9.450	23.294	1.000	3.000	8.000
<i>BTD</i>	12,446	0.037	0.109	0.000	0.024	0.059
<i>UTB</i>	12,446	0.008	0.013	0.000	0.003	0.010
<i>DTA</i>	12,446	0.053	0.047	0.023	0.042	0.071
<i>DTL</i>	12,446	0.055	0.055	0.014	0.040	0.077
<i>SIZE</i>	12,446	6.633	2.148	5.311	6.752	8.036
<i>MTB</i>	12,446	2.935	3.618	1.307	2.106	3.499
<i>MNE</i>	12,446	0.590	0.492	0.000	1.000	1.000
<i>LEV</i>	12,446	0.193	0.221	0.000	0.135	0.297
<i>R&amp;D</i>	12,446	0.028	0.052	0.000	0.000	0.032
<i>INVT</i>	12,446	0.129	0.142	0.009	0.088	0.195
<i>CAPITAL</i>	12,446	0.274	0.258	0.086	0.187	0.377
<i>ROA</i>	12,446	0.107	0.085	0.051	0.089	0.142
<i>ΔNOL</i>	12,446	0.000	0.080	-0.001	0.000	0.001
<i>CASH</i>	12,446	0.155	0.168	0.038	0.101	0.209
<i>%ΔREV</i>	12,446	0.126	0.253	0.004	0.078	0.184
<i>INTAN</i>	12,446	0.227	0.238	0.026	0.153	0.361

This table reports firm characteristics of the full sample from the year 2007 to the year 2014. To mitigate the influence of outliers, all continuous variables are winsorized at the 1 and 99 percent levels. All variables are defined in the appendix A.

**TABLE 3**  
**Replicating Bozanic et al. 2017**

Dependent Variable = <i>IRSATTENTION</i>					
<i>CASHETR</i>		<b>0.002</b> <b>(0.683)</b>	<b>0.000</b> <b>(0.058)</b>	<b>-0.005</b> <b>(-1.146)</b>	<b>-0.006</b> <b>(-1.247)</b>
<i>GAAPETR</i>		-0.017*** (-4.528)	-0.016*** (-4.407)	-0.002 (-0.516)	-0.002 (-0.465)
<i>BTD</i>		0.010** (2.461)	0.010** (2.558)	0.002 (0.462)	0.002 (0.443)
<i>UTB</i>		0.035*** (8.169)	0.036*** (8.697)	0.025*** (3.800)	0.024*** (3.746)
<i>DTA</i>		0.006 (1.457)	0.011*** (2.789)	0.003 (0.401)	0.003 (0.390)
<i>DTL</i>		0.013*** (2.690)	0.011** (2.364)	0.009 (0.977)	0.009 (0.949)
<i>SIZE</i>		0.227*** (28.738)	0.218*** (27.270)	0.056*** (2.666)	0.056*** (2.616)
<i>MTB</i>		-0.007** (-2.390)	-0.007** (-2.444)	-0.007* (-1.895)	-0.007* (-1.815)
<i>MNE</i>		0.036 (1.515)	0.042* (1.679)	0.000 (0.008)	0.005 (0.095)
<i>LEV</i>		-0.092 (-1.596)	-0.089 (-1.547)	0.002 (0.017)	0.017 (0.172)
<i>R&amp;D</i>		-0.866*** (-3.695)	-0.726*** (-2.916)	0.154 (0.202)	0.076 (0.099)
<i>INVT</i>		0.272*** (3.432)	0.078 (0.814)	-0.312 (-1.322)	-0.278 (-1.168)
<i>CAPITAL</i>		-0.368*** (-6.254)	-0.346*** (-5.506)	-0.293** (-2.318)	-0.294** (-2.264)
<i>ROA</i>		-0.616*** (-4.577)	-0.552*** (-4.192)	0.096 (0.451)	0.063 (0.297)
<i>ΔNOL</i>		-0.213* (-1.929)	-0.196* (-1.783)	0.147 (0.990)	0.149 (0.998)
<i>CASH</i>		-0.260*** (-4.106)	-0.197*** (-3.074)	-0.046 (-0.452)	-0.038 (-0.364)
<i>%ΔREV</i>		-0.085** (-2.343)	-0.105*** (-2.922)	-0.037 (-0.739)	-0.038 (-0.756)
<i>INTAN</i>		-0.300*** (-4.900)	-0.233*** (-3.758)	-0.040 (-0.366)	-0.059 (-0.534)
Constant	1.997*** (92.241)	-0.664*** (-11.770)	-0.531*** (-3.400)	1.767*** (10.031)	-0.286** (-2.459)
Ind., Firm, Year FE	NO	NO	YES	NO	YES
Cluster by	FIRM	FIRM	FIRM	FIRM	FIRM
Observations	12446	12446	12446	12446	12446
<i>R</i> <sup>2</sup>	0.650	0.387	0.404	0.652	0.654

This table reports the results replicating the results in table 2 of Bozanic et al. 2017. All p-values are two-tailed. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A.



**TABLE 4**  
**Descriptive Statistics**

Variable	N	Mean	St. Dev	P25	Median	P75
<b>Panel A: Descriptive Statistics for Firms with <i>PROFIT1</i> = 1</b>						
<i>GAAPETR</i>	9,297	0.299	0.110	0.244	0.320	0.368
<i>CASHETR</i>	9,297	0.254	0.146	0.154	0.255	0.343
<i>IRSATTENTION</i>	9,297	10.493	25.049	1.000	3.000	9.000
<i>BTD</i>	9,297	0.037	0.085	0.003	0.025	0.056
<i>UTB</i>	9,297	0.008	0.013	0.000	0.003	0.010
<i>DTA</i>	9,297	0.052	0.042	0.025	0.043	0.068
<i>DTL</i>	9,297	0.057	0.054	0.018	0.043	0.079
<i>SIZE</i>	9,297	6.959	2.066	5.715	7.040	8.296
<i>MTB</i>	9,297	3.017	3.335	1.404	2.210	3.599
<i>MNE</i>	9,297	0.614	0.487	0.000	1.000	1.000
<i>LEV</i>	9,297	0.188	0.212	0.001	0.138	0.289
<i>R&amp;D</i>	9,297	0.025	0.046	0.000	0.000	0.029
<i>INVT</i>	9,297	0.132	0.141	0.011	0.095	0.198
<i>CAPITAL</i>	9,297	0.274	0.248	0.094	0.193	0.371
<i>ROA</i>	9,297	0.117	0.080	0.061	0.098	0.150
<i>ΔNOL</i>	9,297	0.001	0.060	−0.001	0.000	0.000
<i>CASH</i>	9,297	0.148	0.157	0.039	0.098	0.203
<i>%ΔREV</i>	9,297	0.103	0.202	0.005	0.073	0.165
<i>INTAN</i>	9,297	0.235	0.237	0.033	0.168	0.374
<b>Panel B: Descriptive Statistics for Firms with <i>PROFIT1</i> = 0</b>						
<i>GAAPETR</i>	3,149	0.255	0.167	0.110	0.269	0.369
<i>CASHETR</i>	3,149	0.179	0.179	0.029	0.126	0.280
<i>IRSATTENTION</i>	3,149	6.373	16.721	1.000	2.000	5.000
<i>BTD</i>	3,149	0.039	0.161	−0.018	0.021	0.070
<i>UTB</i>	3,149	0.008	0.015	0.000	0.001	0.009
<i>DTA</i>	3,149	0.057	0.057	0.013	0.042	0.081
<i>DTL</i>	3,149	0.049	0.058	0.004	0.029	0.072
<i>SIZE</i>	3,149	5.670	2.097	4.189	5.832	7.136
<i>MTB</i>	3,149	3.062	3.695	1.151	1.882	3.253
<i>MNE</i>	3,149	0.518	0.500	0.000	1.000	1.000
<i>LEV</i>	3,149	0.207	0.247	0.000	0.125	0.327
<i>R&amp;D</i>	3,149	0.038	0.068	0.000	0.000	0.047
<i>INVT</i>	3,149	0.122	0.147	0.003	0.073	0.186
<i>CAPITAL</i>	3,149	0.273	0.284	0.065	0.162	0.399
<i>ROA</i>	3,149	0.078	0.093	0.023	0.058	0.107
<i>ΔNOL</i>	3,149	−0.004	0.122	−0.012	0.000	0.003
<i>CASH</i>	3,149	0.175	0.196	0.036	0.110	0.235
<i>%ΔREV</i>	3,149	0.193	0.355	0.000	0.102	0.263
<i>INTAN</i>	3,149	0.202	0.239	0.012	0.111	0.317

This table reports firm characteristics for the samples with *PROFIT1* = 1 (Panel A) and *PROFIT1* = 0 (Panel B) over 2007 to 2014. *PROFIT1* equals one, if pre-tax income in the recent two years is greater than zero, zero otherwise. To mitigate the influence of outliers, all continuous variables are winsorized at the 1 and 99 percent levels. All variables are defined in appendix A.

**TABLE 5**  
**Pearson (above) / Spearman (below) Correlations**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<i>IRSATTENTION</i>		0.012	-0.129	0.061	0.361	0.141	0.153	0.485	0.077	0.252	0.060	0.002	-0.033	-0.055	-0.038	0.043	-0.085	-0.110	0.077
		0.266	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.824	0.002	<.0001	0.000	<.0001	<.0001	<.0001	<.0001
<i>CASHETR</i>	0.012		0.360	-0.355	0.020	-0.019	-0.023	0.030	0.007	-0.005	-0.144	-0.156	0.164	-0.137	0.153	0.054	-0.053	-0.163	-0.028
	0.266		<.0001	<.0001	0.051	0.073	0.026	0.004	0.504	0.616	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.007
<i>GAAPETR</i>	-0.129	0.360		-0.230	-0.141	0.002	0.137	-0.111	-0.007	-0.237	-0.069	-0.222	0.071	0.058	0.152	-0.010	-0.062	-0.025	-0.080
	<.0001	<.0001		<.0001	<.0001	0.874	<.0001	<.0001	0.500	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.360	<.0001	0.018	<.0001
<i>BTD</i>	0.061	-0.355	-0.230		0.017	-0.045	0.069	0.092	0.052	0.027	0.072	0.038	-0.104	0.152	0.232	0.386	0.057	0.138	-0.003
	<.0001	<.0001	<.0001		0.104	<.0001	<.0001	<.0001	<.0001	0.008	<.0001	0.000	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.767
<i>UTB</i>	0.361	0.020	-0.141	0.017		0.302	0.123	0.467	0.099	0.393	0.068	0.152	-0.066	-0.162	-0.027	0.056	-0.003	-0.109	0.169
	<.0001	0.051	<.0001	0.104		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.008	<.0001	0.776	<.0001	<.0001
<i>DTA</i>	0.141	-0.019	0.002	-0.045	0.302		0.159	0.215	0.136	0.182	0.067	0.142	-0.032	-0.069	-0.015	0.041	-0.020	-0.073	0.052
	<.0001	0.073	0.874	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.002	<.0001	0.158	<.0001	0.054	<.0001	<.0001
<i>DTL</i>	0.153	-0.023	0.137	0.069	0.123	0.159		0.300	0.018	0.024	0.337	-0.244	-0.172	0.330	-0.155	0.080	-0.335	-0.002	0.324
	<.0001	0.026	<.0001	<.0001	<.0001	<.0001		<.0001	0.085	0.023	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.869	<.0001
<i>SIZE</i>	0.485	0.030	-0.111	0.092	0.467	0.215	0.300		0.237	0.379	0.180	0.029	-0.167	0.057	0.076	0.068	-0.157	-0.040	0.188
	<.0001	0.004	<.0001	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	0.005	<.0001	<.0001	<.0001	<.0001	<.0001	0.000	<.0001
<i>MTB</i>	0.077	0.007	-0.007	0.052	0.099	0.136	0.018	0.237		0.057	0.034	0.111	-0.090	-0.036	0.284	-0.003	0.112	0.072	0.007
	<.0001	0.504	0.500	<.0001	<.0001	<.0001	0.085	<.0001		<.0001	0.001	<.0001	<.0001	0.001	<.0001	0.737	<.0001	<.0001	0.518
<i>MNE</i>	0.252	-0.005	-0.237	0.027	0.393	0.182	0.024	0.379	0.057		0.003	0.202	-0.030	-0.199	-0.075	0.048	0.002	-0.061	0.161
	<.0001	0.616	<.0001	0.008	<.0001	<.0001	0.023	<.0001	<.0001		0.762	<.0001	0.004	<.0001	<.0001	<.0001	0.829	<.0001	<.0001
<i>LEV</i>	0.060	-0.144	-0.069	0.072	0.068	0.067	0.337	0.180	0.034	0.003		-0.189	-0.098	0.291	-0.224	0.074	-0.279	0.100	0.338
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.001	0.762		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>R&amp;D</i>	0.002	-0.156	-0.222	0.038	0.152	0.142	-0.244	0.029	0.111	0.202	-0.189		-0.102	-0.272	0.049	-0.024	0.322	0.055	0.005
	0.824	<.0001	<.0001	0.000	<.0001	<.0001	<.0001	0.005	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	0.023	<.0001	<.0001	0.601
<i>INVT</i>	-0.033	0.164	0.071	-0.104	-0.066	-0.032	-0.172	-0.167	-0.090	-0.030	-0.098	-0.102		-0.117	0.010	0.002	-0.127	0.021	-0.229
	0.002	<.0001	<.0001	<.0001	<.0001	0.002	<.0001	<.0001	<.0001	0.004	<.0001	<.0001		<.0001	0.331	0.867	<.0001	0.043	<.0001
<i>CAPITAL</i>	-0.055	-0.137	0.058	0.152	-0.162	-0.069	0.330	0.057	-0.036	-0.199	0.291	-0.272	-0.117		-0.071	0.059	-0.241	0.133	-0.327
	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.001	<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	<.0001
<i>ROA</i>	-0.038	0.153	0.152	0.232	-0.027	-0.015	-0.155	0.076	0.284	-0.075	-0.224	0.049	0.010	-0.071		-0.071	0.290	0.153	-0.181
	0.000	<.0001	<.0001	<.0001	0.008	0.158	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.331	<.0001		<.0001	<.0001	<.0001	<.0001
<i>ANOL</i>	0.043	0.054	-0.010	0.386	0.056	0.041	0.080	0.068	-0.003	0.048	0.074	-0.024	0.002	0.059	-0.071		-0.062	0.035	0.065
	<.0001	<.0001	0.360	<.0001	<.0001	<.0001	<.0001	<.0001	0.737	<.0001	<.0001	0.023	0.867	<.0001	<.0001		<.0001	0.001	<.0001
<i>CASH</i>	-0.085	-0.053	-0.062	0.057	-0.003	-0.020	-0.335	-0.157	0.112	0.002	-0.279	0.322	-0.127	-0.241	0.290	-0.062	1.000	0.131	-0.180
	<.0001	<.0001	<.0001	<.0001	0.776	0.054	<.0001	<.0001	<.0001	0.829	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
<i>%ΔREV</i>	-0.110	-0.163	-0.025	0.138	-0.109	-0.073	-0.002	-0.040	0.072	-0.061	0.100	0.055	0.021	0.133	0.153	0.035	0.131	1.000	0.131
	<.0001	<.0001	0.018	<.0001	<.0001	<.0001	0.869	0.000	<.0001	<.0001	<.0001	<.0001	0.043	<.0001	<.0001	0.001	<.0001		<.0001
<i>INTAN</i>	0.077	-0.028	-0.080	-0.003	0.169	0.052	0.324	0.188	0.007	0.161	0.338	0.005	-0.229	-0.327	-0.181	0.065	-0.180	0.131	1.000
	<.0001	0.007	<.0001	0.767	<.0001	<.0001	<.0001	<.0001	0.518	<.0001	<.0001	0.601	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001

This table reports Person and Spearman Correlation results between variables in the sample with *PROFIT*=1. Reported P-values are two-sided.

**TABLE 6**  
**IRS Attention, Cash Tax Avoidance, and Firm Profitability (H1)**

Dependent Variable =	<i>PROFIT1=1</i>	<i>PROFIT1=0</i>	<i>PROFIT2=1</i>	<i>PROFIT2=0</i>
	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>
<b>CASHETR</b>	<b>-0.010*</b> (-1.658)	<b>-0.002</b> (-0.093)	<b>-0.014**</b> (-2.089)	<b>0.001</b> (0.064)
<i>GAAPETR</i>	-0.010 (-1.575)	0.012 (0.662)	-0.010 (-1.216)	0.003 (0.379)
<i>BTD</i>	0.002 (0.363)	-0.003 (-0.124)	-0.001 (-0.195)	0.003 (0.317)
<i>UTB</i>	0.021*** (2.672)	0.028 (0.909)	0.016* (1.783)	0.016 (0.971)
<i>DTA</i>	0.003 (0.334)	0.009 (0.352)	0.003 (0.256)	0.006 (0.412)
<i>DTL</i>	0.012 (1.066)	-0.004 (-0.106)	0.008 (0.599)	0.004 (0.238)
<i>SIZE</i>	0.086*** (2.870)	-0.040 (-0.457)	0.089** (2.408)	-0.019 (-0.456)
<i>MTB</i>	-0.007 (-1.517)	-0.001 (-0.065)	-0.010 (-1.599)	-0.005 (-0.677)
<i>MNE</i>	-0.005 (-0.079)	0.029 (0.115)	-0.003 (-0.035)	0.036 (0.263)
<i>LEV</i>	0.096 (0.729)	-0.136 (-0.320)	0.155 (0.999)	-0.126 (-0.629)
<i>R&amp;D</i>	0.335 (0.273)	-0.456 (-0.233)	-0.770 (-0.478)	0.174 (0.152)
<i>INVT</i>	-0.512 (-1.629)	0.027 (0.023)	-0.435 (-1.165)	0.053 (0.113)
<i>CAPITAL</i>	-0.417** (-2.440)	0.126 (0.184)	-0.473** (-2.369)	0.004 (0.017)
<i>ROA</i>	0.186 (0.659)	0.109 (0.119)	0.265 (0.806)	0.095 (0.208)
<i>ANOL</i>	0.250 (1.030)	0.177 (0.366)	0.519 (1.607)	0.077 (0.318)
<i>CASH</i>	-0.052 (-0.369)	-0.022 (-0.058)	-0.076 (-0.431)	0.007 (0.040)
<i>%ΔREV</i>	-0.058 (-0.821)	-0.116 (-0.593)	-0.035 (-0.400)	-0.090 (-1.013)
<i>INTAN</i>	-0.030 (-0.212)	-0.159 (-0.370)	-0.051 (-0.317)	-0.094 (-0.443)
Constant	-0.212 (-1.479)	-0.198 (-0.309)	-0.070 (-0.451)	-0.217 (-0.823)
Ind., Firm, Year FE	YES	YES	YES	YES
<b>Dif. on <math>\beta_1</math> (Test of H1)</b>	<b>t=-2.355</b>		<b>t=-5.095</b>	
Observations	9,297	3,149	7,573	4,873
R2	0.662	0.864	0.666	0.755

This table reports the effect of *CASHETR* on IRS attention conditional on firm profits in the recent two and three years. *PROFIT1* (*PROFIT2*) equals one, if pre-tax income in the recent two (three) years is greater than zero, zero otherwise. All p-values are two-tailed. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A. All standard errors are clustered by firm.

**TABLE 7**  
**IRS Attention, Cash Tax Avoidance, and Firm Size (H2)**

	<i>PROFIT1=1</i>		<i>PROFIT2=1</i>	
	<i>BIGFIRM=1</i>	<i>BIGFIRM=0</i>	<i>BIGFIRM=1</i>	<i>BIGFIRM=0</i>
Dependent Variable =	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>	<i>IRSATTENTION</i>
<b>CASHETR</b>	<b>-0.017</b> <b>(-1.542)</b>	<b>-0.002</b> <b>(-0.349)</b>	<b>-0.018</b> <b>(-1.514)</b>	<b>-0.006</b> <b>(-0.693)</b>
<i>GAAPETR</i>	-0.014 (-1.102)	-0.011 (-1.347)	-0.019 (-1.319)	-0.007 (-0.687)
<i>BTD</i>	-0.001 (-0.146)	0.007 (0.818)	-0.002 (-0.156)	0.004 (0.411)
<i>UTB</i>	0.021* (1.938)	0.020 (1.559)	0.015 (1.229)	0.016 (1.150)
<i>DTA</i>	-0.006 (-0.384)	0.011 (0.883)	-0.021 (-1.137)	0.018 (1.145)
<i>DTL</i>	0.027 (1.328)	-0.008 (-0.603)	0.031 (1.383)	-0.011 (-0.745)
<i>MTB</i>	-0.009 (-1.500)	-0.004 (-0.353)	-0.011 (-1.528)	0.004 (0.367)
<i>MNE</i>	-0.099 (-0.854)	0.086 (0.963)	-0.014 (-0.114)	0.001 (0.009)
<i>LEV</i>	0.074 (0.336)	0.171 (1.016)	0.168 (0.652)	0.279 (1.527)
<i>R&amp;D</i>	0.051 (0.027)	-0.548 (-0.296)	-1.147 (-0.511)	-1.009 (-0.415)
<i>INVT</i>	-0.679 (-1.023)	-0.410 (-1.135)	-0.547 (-0.704)	-0.290 (-0.664)
<i>CAPITAL</i>	-0.431 (-1.452)	-0.324 (-1.467)	-0.335 (-1.052)	-0.434 (-1.602)
<i>ROA</i>	0.284 (0.562)	0.154 (0.433)	0.635 (1.150)	0.114 (0.272)
<i>ANOL</i>	0.926** (1.988)	0.040 (0.142)	1.141** (2.046)	0.193 (0.490)
<i>CASH</i>	0.084 (0.313)	-0.053 (-0.317)	0.281 (0.975)	-0.139 (-0.598)
<i>%AREV</i>	-0.169 (-1.472)	0.003 (0.031)	-0.103 (-0.771)	-0.056 (-0.465)
<i>INTAN</i>	-0.076 (-0.322)	0.051 (0.266)	-0.180 (-0.709)	-0.036 (-0.170)
Constant	1.893*** (7.648)	-0.175 (-1.117)	1.953*** (7.074)	0.022 (0.125)
Ind., Firm, Year FE	YES	YES	YES	YES
<b>Dif. on <math>\beta_1</math> (Test of H2)</b>	<b>t=-4.990</b>		<b>t=-3.691</b>	
Observations	4,648	4,649	3,787	3,786
R2	0.612	0.651	0.653	0.620

This table reports the effect of *CASHETR* on IRS attention conditional on firm size. *PROFIT1* (*PROFIT2*) equals one, if pre-tax income in the recent two (three) years is greater than zero, zero otherwise. *BIGFIRM* equals one, if the market value of equity is greater than the sample median, zero otherwise. All p-values are two-tailed. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A. All standard errors are clustered by firm.

**TABLE 8**  
**IRS Attention, Cash Tax Avoidance, and Foreign Operations (H3)**

Dependent Variable =	<i>PROFIT1</i> =1		<i>PROFIT2</i> =1	
	<i>MNE</i> =1	<i>MNE</i> =0	<i>MNE</i> =1	<i>MNE</i> =0
<i>CASHETR</i>	<b>-0.016*</b> (-1.952)	<b>-0.006</b> (-0.733)	<b>-0.014**</b> (-2.089)	<b>0.001</b> (0.064)
<i>GAAPETR</i>	-0.011 (-1.206)	-0.002 (-0.160)	-0.010 (-1.216)	0.003 (0.379)
<i>BTD</i>	0.008 (0.936)	-0.004 (-0.414)	-0.001 (-0.195)	0.003 (0.317)
<i>UTB</i>	0.022** (2.250)	0.012 (0.806)	0.016* (1.783)	0.016 (0.971)
<i>DTA</i>	0.004 (0.256)	0.004 (0.280)	0.003 (0.256)	0.006 (0.412)
<i>DTL</i>	0.022 (1.283)	-0.005 (-0.291)	0.008 (0.599)	0.004 (0.238)
<i>SIZE</i>	0.124*** (2.805)	0.030 (0.744)	0.089** (2.408)	-0.019 (-0.456)
<i>MTB</i>	-0.010 (-1.547)	-0.008 (-0.844)	-0.010 (-1.599)	-0.005 (-0.677)
<i>LEV</i>	0.114 (0.618)	0.029 (0.142)	0.155 (0.999)	-0.126 (-0.629)
<i>R&amp;D</i>	0.349 (0.194)	0.955 (0.688)	-0.770 (-0.478)	0.174 (0.152)
<i>INVT</i>	-0.228 (-0.475)	-0.708 (-1.536)	-0.435 (-1.165)	0.053 (0.113)
<i>CAPITAL</i>	-0.686** (-2.468)	-0.113 (-0.496)	-0.473** (-2.369)	0.004 (0.017)
<i>ROA</i>	-0.146 (-0.339)	0.537 (1.381)	0.265 (0.806)	0.095 (0.208)
<i>ANOL</i>	0.274 (0.834)	0.319 (0.945)	0.519 (1.607)	0.077 (0.318)
<i>CASH</i>	-0.097 (-0.426)	0.080 (0.442)	-0.076 (-0.431)	0.007 (0.040)
<i>%AREV</i>	-0.007 (-0.066)	-0.099 (-1.020)	-0.035 (-0.400)	-0.090 (-1.013)
<i>INTAN</i>	-0.137 (-0.664)	0.199 (0.944)	-0.051 (-0.317)	-0.094 (-0.443)
Constant	-0.318* (-1.675)	-0.442* (-1.677)	-0.070 (-0.451)	-0.217 (-0.823)
Ind., Firm, Year FE	YES	YES	YES	YES
<b>Dif. on <math>\beta_1</math> (Test of H3)</b>	<b>t=-3.101</b>		<b>t=-4.312</b>	
Observations	5,707	3,590	4,760	2,813
R2	0.661	0.629	0.665	0.634

This table reports the effect of *CASHETR* on IRS attention conditional on foreign operations. *PROFIT1* (*PROFIT2*) equals one, if pre-tax income in the recent two (three) years is greater than zero, zero otherwise. *MNE* equals one, if firms have any foreign pre-tax income, zero otherwise. All p-values are two-tailed. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A. All standard errors are clustered by firm.

**TABLE 9**  
**Future Cash Tax Payment, IRS Attention and Firm Profitability**

	<i>FULLSAMPLE</i>	<i>PROFIT1=1</i>	<i>PROFIT1=0</i>	<i>PROFIT2=1</i>	<i>PROFIT2=0</i>
	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>
<i>IRSATTENTIONHAT</i>	<b>0.010**</b>	<b>0.005</b>	<b>-0.058</b>	<b>0.016</b>	<b>-0.054*</b>
<i>GAAPETR</i>	0.002**	0.010***	0.008***	0.010***	0.009***
<i>BTD</i>	-0.009***	-0.018***	-0.016***	-0.018***	-0.016***
<i>UTB</i>	-0.002	-0.001	0.005*	-0.002	0.005**
<i>DTA</i>	-0.007***	-0.004***	-0.005***	-0.004***	-0.005***
<i>DTL</i>	0.000	0.001	0.008***	0.000	0.007***
<i>SIZE</i>	0.011*	0.000	0.017**	-0.003	0.016***
<i>MTB</i>	-0.002**	-0.002***	-0.004***	-0.002***	-0.004***
<i>MNE</i>	0.001	0.020***	0.024**	0.017***	0.026***
<i>LEV</i>	-0.004	-0.028**	-0.057***	-0.028**	-0.044**
<i>R&amp;D</i>	-0.493*	-0.255***	-0.413***	-0.220***	-0.386***
<i>INVT</i>	0.074	0.126***	0.142***	0.118***	0.148***
<i>CAPITAL</i>	0.040	-0.028*	-0.040	-0.028*	-0.033
<i>ROA</i>	0.310***	0.400***	0.409***	0.385***	0.421***
<i>ΔNOL</i>	0.192***	0.427***	0.317***	0.485***	0.313***
<i>CASH</i>	0.047**	0.013	0.039	0.015	0.027
<i>%ΔREV</i>	-0.007	-0.041***	-0.009	-0.036***	-0.022
<i>INTAN</i>	0.047**	0.005	0.018	0.005	0.018
Constant	-0.084***	0.207***	0.081	0.242***	0.073
Ind. & Firm FE	YES	YES	YES	YES	YES
Cluster by	FIRM	FIRM	FIRM	FIRM	FIRM
Observations	8,279	6,614	1,665	5,537	2,742
Dif. on $\beta_1$			<b>t=15.429</b>		<b>t=20.696</b>
$R^2$	0.623	0.264	0.277	0.264	0.268

This table reports the effect of IRS attention on future *CASHETR* in the full sample and samples conditional on profitability. *PROFIT1* (*PROFIT2*) equals one, if pre-tax income in the recent two (three) years is greater than zero, zero otherwise. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A. All standard errors are clustered by firm.

**TABLE 10**  
**Future Cash Tax Payment, IRS Attention, Firm Size, and Foreign Operations**

	<i>PROFIT1=1</i>		<i>PROFIT2=1</i>	
	<i>BIGFIRM =1</i>	<i>BIGFIRM =0</i>	<i>MNE=1</i>	<i>MNE=0</i>
	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>	<i>CASHETR<sub>t+1</sub></i>
<i>IRSATTENTIONHAT</i>	<b>0.038</b>	<b>-0.020</b>	<b>0.009</b>	<b>0.009</b>
<i>GAAPETR</i>	0.003	0.002	0.004	-0.001
<i>BTD</i>	-0.007***	-0.009***	-0.008***	-0.009***
<i>UTB</i>	-0.004*	0.001	-0.003	-0.002
<i>DTA</i>	-0.007**	-0.006*	-0.007***	-0.005
<i>DTL</i>	-0.000	0.001	0.000	0.001
<i>SIZE</i>			0.009	-0.005
<i>MTB</i>	-0.001	-0.003	-0.001	-0.003*
<i>MNE</i>	0.006	0.014		
<i>LEV</i>	0.004	-0.024	0.006	0.012
<i>R&amp;D</i>	-0.361	-0.242	-0.437	-0.112
<i>INVT</i>	0.142	0.092	0.060	0.178
<i>CAPITAL</i>	0.125*	-0.060	0.011	-0.016
<i>ROA</i>	0.356***	0.375***	0.344***	0.416***
<i>ANOL</i>	0.067	0.286***	0.165**	0.381***
<i>CASH</i>	0.014	0.048	0.048	0.077*
<i>%ΔREV</i>	-0.007	-0.026	-0.017	-0.025
<i>INTAN</i>	0.069	0.033	0.047	0.045
Constant	0.151	0.059	0.141***	0.040
Ind. & Firm FE	YES	YES	YES	YES
Cluster by	FIRM	FIRM	FIRM	FIRM
Observations	2,876	2,661	3,543	1,994
Dif. on $\beta_1$	<b>t=5.003</b>		<b>t=0.000</b>	
$R^2$	0.640	0.610	0.594	0.632

This table reports the effect of IRS attention on future *CASHETR* conditional on size and overseas operations. *PROFIT1* (*PROFIT2*) equals one, if pre-tax income in the recent two (three) years is greater than zero. *BIGFIRM* equals one, if the market value of equity is greater than the sample median, zero otherwise. *MNE* equals one, if firms have any foreign pre-tax income, zero otherwise. \*\*\*, \*\* and \* denote significance levels of 1%, 5%, and 10%, respectively. All variables are defined in the appendix A. All standard errors are clustered by firm.